

Amendments to the Specification:

Delete the claims to priority beginning on page 1, line 4, through page 4, line 4, and replace with the following paragraph:

*11/9/05
7/15/05*
This application is a continuation-in-part of U.S. Serial No. 09/377,936, filed August 20, 1999, ^(now abandoned) and this application also is a continuation-in-part of U.S. Serial No. 09/377,937, filed August 20, 1999, ^(now abandoned)

At page 4, amend the paragraph beginning at line 5 as follows:

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The entirety of these previous applications are incorporated herein by reference as if set forth in full below. Also, the following patent applications, for which priority is not claimed, are also incorporated herein by reference, specifically for the teachings as to details of the fruit juice extraction device disclosed therein, including the components thereof and their variations: U.S. Serial No. 09/028,187 filed February 23, 1998; U.S. Serial No. 08/884,529 filed June 27, 1997; U.S. Serial No. 08/763,679 filed December 11, 1996; U.S. Serial No. 08/759,727 filed December 6, 1996; U.S. Serial No. 08/759,722 (now U.S. Pat. No. 5,720,219) filed December 6, 1996; U.S. Serial No. 08/759,723 filed December 6, 1996; U.S. Serial No. 08/759,724 filed December 6, 1996; U.S. Serial No. 08/681,622 filed July 29, 1996; U.S. Serial No. 08/681,623 filed July 29, 1996; U.S. Serial No. 08/681,624 filed July 29, 1996; U.S. Serial No. 08/681,625 filed July 29, 1996; U.S. Serial No. 08/681,626 (now U.S. Pat. No. 5,802,964) filed July 29, 1996; U.S. Serial No. 08/681,658 filed July 29, 1996; U.S. Serial No. 08/681,627 (now U.S. Pat. No. 5,720,218) filed July 29, 1996; U.S. Serial No. 08/681,628 filed July 29, 1996; and U.S. Serial No. 08/647,066 (now U.S. Pat. No. 5,655,441) filed May 9, 1996.

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At Page 15, after Line 19 amend the heading as follows:

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BRIEF DESCRIPTION OF THE DRAWINGS:

At page 15, amend the paragraph beginning at line 23 as follows:

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FIGURE 1: A side cross-sectional view of the invention, as described before, in its first or preferred embodiment or version, ~~showing, on the left side, a moveable peeler cup in the full open position, as well as the expulsion of the fruit's core and its falling into the fruit core collector duct, as well as the vertical falling of the sheared peeled skins. On the right side, one can observe the closed position of the moveable peeler cup, fully engaged with the fixed peeler cup, as well as the juice being filtered through the filtering device while the fruit's core remains inside the filter itself at this point in the extraction cycle. Also shown is the juice being collected in the juice collection chamber, sheared peel skin strips falling vertically down and, finally, dried fruit cores falling further through the fruit core receiving duct, in a manner that all of the byproducts being produced can now be directed respectively to other stages of processing;~~

At page 16, amend the paragraph beginning at line 18 as follows:

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FIGURE 2: A top view of the embodiment of the invention of FIGURE 1 taken along the LINE A-A2-2 (or "VISTA A-A") of FIGURE 1;

At page 22, amend the paragraph beginning at line 7 as follows:

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In continuation of the extraction cycle, the fruit (19) now held in the chamber formed by the intermeshing of the moveable peeler cup (4) and its matched pair fixed peeler cup (3), is then pressed by the moveable peeler cup (4) into the fixed peeler cup (3), since both have multiple radially cut openings, the action causes the skin of the fruit to be sheared in multiple strips (12) which pass through the peeler cups' radial openings and fall vertically, while the fruit's core (13) is taken inside the filtering device (7 or F) since this filtering device has a circular sharp cutting point at its forward opening, permitting the fruit's core (13) to enter completely into the filter (7), which has radially cut[[s]] slits which allow for the extracted juice (11) to flow through and be collected in the space formed by the inside of the fixed peeler cup (3) and the juice collector (10). It is noted that the moveable peeler cup (4) has a concentric central pin (25) and the fixed peeler cup (3) has a perforating tube filter (7) that alternatively is referred to, inter alia, as a filtering device, and a filter, and is included within the scope of the term "filtering means."

At page 24, after line 2, insert the following paragraph:

A6
Further as to the respective ends being 180 degrees out of phase, Figure 1, on the left side, depicts a moveable peeler cup in the full open position, as well as the expulsion of the fruit's core and its falling into the fruit core collector duct, as well as the vertical falling of the sheared peeled skins. On the right side of Figure 1, one can observe the closed position of the moveable peeler cup, fully engaged with the fixed peeler cup, as well as the juice being filtered through the filtering device while the fruit's core remains inside the filter itself at this point in the extraction cycle. Also shown is the juice being collected in the juice collection chamber, sheared peel skin strips falling vertically down and, finally, dried fruit cores falling further through the fruit core receiving duct, in a manner that all of the byproducts being produced can now be directed respectively to other stages of processing.

At page 24, amend the paragraph beginning at line 3 as follows:

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In the second embodiment or version of this invention, there is an alternate way of driving the plunger (8), but the fruit juice extraction cycle is the same as in the first version described above. As shown in FIGURES 4 and 5, a linear actuator (2) drives two moveable peeler cups (4), each attached to one of the two extreme ends of the linear actuator (2) and guided linearly by the guide rails (17) which slide on bearing seats (18) mounted transversely and coincidentally with each other, being that the moveable peeler cups (4) move in the direction of the fixed peeler cups (3) which in turn are firmly attached to a structural chassis (1), while the motion of said moveable peeler cups (4) is solidly transmitted to vertical rods (6), in a synchronized manner such that these vertical rods will touch and initiate a linear dislodging the feeder mechanisms spring (5), thus allowing one of the fruit (19) to drop through the feeder duct and into the chamber formed by the intermeshing of the moveable peeler cup (4) and its matched pair fixed peeler cup (3). In continuation of the extraction cycle, the fruit (19) now held in the chamber formed by the intermeshing of the moveable peeler cup (4) and its matched pair fixed peeler cup (3), is then pressed by the moveable peeler cup (4) into the fixed peeler cup (3), since both have multiple radially cut openings, the action causes the skin of the fruit to be sheared in multiple strips (12) which pass through the peeler cups radial openings and fall vertically, while the fruit's core (13) is taken inside the filtering device (7) since this filtering device has a circular sharp cutting point at its forward opening, permitting the fruit's core to enter completely into the filter (7), which has radially cut[[s]] slits which allow for the extracted juice (11) to flow through and be collected in the space formed by the inside of the fixed peeler cup (3) and the juice collector (10). In the final stages of the extraction cycle, driven by the action of linear actuator (2), the moveable peeler cup (4) moves back and away from the fixed peeler cup (3), and since it is solidly fixed to a transverse cross member (20), causes the simultaneously driving of said cross member (20) which in turn is attached through the pull rods (15) to another transverse cross member (9) at the opposite end, to which plunger (B) is firmly fixed, thus driving said plunger (8) to travel through the filter and push directly on the fruit's core (13) until said core is expelled completely from the forward end of the filter (7) and, finally, the dried fruit core (13) falls into and through the chamber formed by the fixed (3) and moveable (4) peeler cups, and is directed to further fall through the fruit core receiving duct (14), in a manner so that all of the byproducts being produced: juice (11), peel (12) and core (13), can now be directed respectively to other

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stages of processing. With the moveable peeler cup (4) in the full open position, the machine is ready to commence another fruit juice extraction cycle. Given that the geometry and configuration is as shown, one can see that the pair of peeler cups (3) and (4) at one end of the machine will be exactly 180 degrees out of phase with respect to the pair of peeler cups at the opposite end of said machine. At either end of the machine, or, at either pair of peeler cups, the juice extraction cycle is exactly identical and fully described above.

At page 28, amend the paragraph beginning at line 5 as follows:

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The "IMPROVED CONFIGURATION FOR A SELF-CLEANING FILTER WITH REMOVABLE PERFORATING POINT FOR THE EXTRACTION OF FRUIT JUICE," object of this application for utility patent, consists of a cylindrical filtering device such as device 7 or F of the invention in "IMPROVEMENTS IN A MODULAR FRUIT JUICE EXTRACTION SYSTEM" illustrated in FIGURES 1 - 5. Device 7, details of which are best seen in FIGURES 6 - 9, has a filter body (51) constructed of stainless steel or other food grade, nontoxic materials developed with the purpose of obtaining high quality and large quantities of juice from citrus fruit and other round or near-round non-citrus fruit.

At page 30, amend the paragraph beginning at line 22 as follows:

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In the third embodiment or version 100 (the 100 series is used to identify identical components to the first and second embodiments unless a specific description is given, i.e., filtering device ~~107~~(107) is identical to filtering device ~~7~~(7)), as best seen in FIGURES 10 - 11, a linear actuator (102) drives moveable peeler cups (104) (concave and radially cut hemispheres), be it by hydraulic, pneumatic, screw, electrical or other linear motion drive device, in a manner such that the moveable peeler cup (104) at one end of the machine is closing in relation to the fixed peeler cup (103) at the same end, while the other peeler cup (104), at the opposite end of the first, is opening with respect to its matching fixed peeler cup (103). In so doing, and by the nature of the back and forth motion of the linear drive device, there is a doubling of the productivity of the machine cycle. The machine cycle encompasses the linear movement of the

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two moveable peeler cups (104), each attached to one of the two extreme ends of the linear actuator (102) and guided linearly by the guide rails (117) which slide on bearing seats (118) mounted transversely and coincidentally with each other, being that the moveable peeler cups (104) move in the direction of the fixed peeler cups (103) which in turn are firmly attached to a structural chassis (101), while the motion of said moveable peeler cups (104) is solidly transmitted to vertical rods (106), in a synchronized manner such that these vertical rods will touch and initiate a linear dislodging of the feeder mechanism's spring (105), thus allowing one of the fruit (119) to drop through the feeder duct and into the chamber formed by the intermeshing of the moveable peeler cup (104) and its matched pair fixed peeler cup (103).

At page 32, amend the paragraph beginning at line 9 as follows:

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In continuation of the extraction cycle, the fruit (119) now held in the chamber formed by the intermeshing of the moveable peeler cup (104) and its matched pair fixed peeler cup (103), is then pressed by the moveable peeler cup (104) into the fixed peeler cup (103), since both have multiple radially cut openings, the action causes the skin of the fruit to be sheared in multiple strips (112) which pass through the peeler cups' radial openings and fall vertically, while the fruit's core (113) is taken inside the filtering device (107) since this filtering device has a circular sharp cutting point (such as point 53 of filtering device 7) at its forward opening, permitting the fruit's core (113) to enter completely into the filter (107), which has radially cut[[s]] slits which allow for the extracted juice (111) to flow through and be collected in the space formed by the inside of the fixed peeler cup (103) and the juice collector (110).

At page 34, amend the paragraph beginning at line 17 as follows:

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In the fourth embodiment or version 200 (the 200 series is used to identify identical components to the first through third embodiments unless a specific description is given, i.e., filtering device ~~207~~(207) is identical to filtering devices ~~7~~(7) and ~~107~~(107)), as best seen in FIGURES 12 - 13, a linear actuator (202) drives both external moveable peeler cups (203) and internal moveable peeler cups (204) (concave and radially cut hemispheres), be it by hydraulic,

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Amel. pneumatic, screw, electrical or other linear motion drive device, in a manner such that the internal moveable peeler cup (204) at one end of the machine is closing in relation to the external moveable peeler cup (203) at the same end, while the other internal moveable peeler cup (204), at the opposite end of the first, is fully closed with respect to its matching external moveable peeler cup (203). In so doing, and by the nature of the back and forth motion of the linear drive device, there is enhanced productivity of the machine cycle. The machine cycle encompasses the linear movement of the two internal moveable peeler cups (204) each attached to one of the two extreme ends of the linear actuator (202) and guided linearly by the guide rails (217) which slide on bearing seats (218) mounted transversely and coincidentally with each other, being that the internal moveable peeler cups (204) move in the direction of the external moveable peeler cups (203) which in turn have linear movement as each attached to one of the two extreme ends of the linear actuator (202) and guided linearly by the secondary guide rails (224) which slide on secondary bearing mounts (225) mounted transversely and coincidentally with each other and are firmly attached to a structural chassis (201), while the motion of said moveable peeler cups (203, 204) is solidly transmitted to vertical rods (206), in a synchronized manner such that these vertical rods will touch and initiate a linear dislodging of the feeder mechanism's spring (205), thus allowing one of the fruit (219) to drop through the feeder duct and into the chamber formed by the intermeshing of the internal moveable peeler cup (204) and its matched pair external moveable peeler cup (203).

~~At page 36, amend the paragraph beginning at line 12 as follows:-~~

At page 36, amend the paragraph beginning at line 12 as follows:

Q12 In continuation of the extraction cycle, the fruit (219) now held in the chamber formed by the intermeshing of the internal moveable peeler cup (204) and its matched pair external moveable peeler cup (203), is then pressed by the internal moveable peeler cup (204) into the external moveable peeler cup (203), since both have multiple radially cut openings, the action causes the skin of the fruit to be sheared in multiple strips (212) which pass through the peeler cups' radial openings and fall vertically, while the fruit's core (213) is taken inside the filtering device (207) since this filtering device has a circular sharp cutting point (such as point 53 of filtering device 7) at its forward opening, permitting the fruit's core (213) to enter completely

into the filter (207), which has radially cut[[s]] slits which allow for the extracted juice (211) to flow through and be collected in the space formed by the inside of the external moveable peeler cup (203) and the juice collector (210).

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